

Presented to the Court by the foreman of the
Grand Jury in open Court, in the presence of
the Grand Jury and FILED in The U.S.
DISTRICT COURT at Seattle, Washington.

February 9, 2006
By Bruce Rifkin, Clerk
H. Brent Zachary, Deputy

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA,

Plaintiff,

v.

CHRISTOPHER MAXWELL,

Defendant.

NO. **CR06 0042P**

INDICTMENT



06-CR-00042-INDI

The Grand Jury charges that:

COUNT 1

(Conspiracy to Intentionally Cause Damage
to a Protected Computer and to Commit Computer Fraud)

A. The Offense

1. Beginning at a time uncertain, but in or about July, 2004, and continuing until on or about July 7, 2005, within the Western District of Washington and elsewhere, CHRISTOPHER MAXWELL did knowingly and willfully conspire, combine, confederate, and agree together with others, known and unknown to the Grand Jury, to commit offenses against the United States, to wit: intentionally causing damage to a protected computer, in violation of Title 18, United States Code, Sections 1030(a)(5)(A)(i), 1030(a)(5)(B)(i), 1030(a)(5)(B)(ii), 1030(b), and 1030(c)(4)(A), and computer fraud, in violation of Title 18, United States Code, Sections 1030(a)(4), 1030(b), and 1030(c)(3)(A), and committed acts in furtherance of that conspiracy.

1 B. Background

2 At all times material herein,

3 2. CHRISTOPHER MAXWELL was a resident of Vacaville, California.

4 3. Northwest Hospital was a 187 bed, community-based, not-for-profit
5 hospital, located in Seattle, Washington that owns, operates and daily relies upon
6 computers used in interstate and foreign commerce and communication.

7 Adware

8 4. Adware is computer software that displays advertisements. Adware
9 companies make money by selling advertising exposure for products or services to the
10 company or individual that is marketing those products or services. To enhance the
11 value of their service - displaying advertisements - adware companies seek to increase
12 the number of computers that run their software. One strategy employed involves
13 "affiliate marketing" programs, whereby the adware companies offer to pay
14 commissions to their "affiliates" based upon the number of installs made of the adware.
15 Each affiliate has a unique identification number or code that is included in the
16 installation software. When the adware software is installed, it initiates a transmission,
17 over the Internet, of that unique identifier back to the adware company. The adware
18 company then tallies up the number of installations by each affiliate and periodically
19 pays the affiliate his or her commission, usually through an online payment service
20 such as Paypal, by checks mailed to the affiliate, or through direct bank deposits.

21 5. Adware is usually installed on an Internet user's computer only upon notice
22 or if the user performs some affirmative action, like downloading other software that is
23 attractive to the user, and with which the adware has been "bundled" or combined.
24 Examples include peer-to-peer file sharing programs, free screen savers, and desktop
25 wallpaper programs. The adware can also be "silently" installed, however, without
26 user interaction and without displaying a consent form or end-user license agreement.
27 Adware companies' affiliate programs rely on the affiliate to obtain the end-users'

1 consent for installation of the adware, typically by appending notification to the user
2 license agreement provided by the software with which the adware is bundled.

3 Internet Relay Chat and IRC Botnets

4 6. Internet Relay Chat ("IRC") is a text based communications protocol for
5 person-to-person communication ("chat") between computers on the Internet. IRC
6 requires one or more servers and one or more clients. A client is a computer, or
7 software running on that computer, that is used by a person to chat via IRC. A server
8 is a computer, or software running on that computer, that manages connections between
9 the many clients and relays messages to the appropriate recipients. IRC offers the
10 ability to have private conversations with only select clients or public conversations
11 with only select clients or public conversations with multiple clients. IRC uses
12 "channels" to determine which users are parties to which conversations. IRC supports
13 the use of passwords, or "keys" to limit access to servers and channels. IRC also
14 provides an administrative level of access, known as an "operator," at the channel and
15 server level to provide configuration and policy enforcement. IRC channels have
16 names, that uniquely identify them, and "topics," that usually describe the conversation
17 happening on the channel.

18 7. An IRC network is a collection of computers communicating with each
19 other via IRC. Generally, an IRC network includes numerous clients (between a few
20 dozen and tens of thousands) and one or several servers (most small networks can
21 operate with only one server, but many have several for performance and availability
22 reasons). Servers are generally always available, while clients connect and disconnect
23 at various times.

24 8. An IRC robot, or "bot," is a program running as an IRC client that
25 responds autonomously to commands sent to it by the IRC server; it can thus receive
26 commands, perform functions, and provide information back to the IRC server without
27 human interaction at the client level. A computer infected with a malicious IRC bot
28

1 and connected to an IRC server is often also referred to as a "bot" or "zombie" or
2 "drone."

3 9. An IRC botnet is an IRC network composed primarily of IRC bots, rather
4 than human clients. The bot clients (i.e., computers infected with an IRC bot) are
5 configured to connect to an IRC channel and "wait" there for further commands. The
6 botnet operator or controller (i.e., a human using an IRC client program) issues those
7 commands by connecting to the IRC server, on the appropriate channel, and then
8 issuing the commands. Most malicious bot programs are also capable of interpreting an
9 IRC channel topic as a command. This allows the owner/operator of the botnet to
10 configure a persistent command, which will be received and executed by every bot as it
11 connects to the channel. This allows the botnet to operate without constant interaction
12 by the owner/operator.

13 10. Malicious bots are installed on computers without the knowledge or
14 consent of the computers' owners. The creator of the botnet typically does this by
15 using a computer or computers to electronically scan or search, over the Internet, for
16 computers with particular vulnerabilities or security weaknesses. He or she then uses
17 an "exploit" or computer code written to take advantage of those vulnerabilities or
18 weaknesses to compromise or "hack" the victim computer. Once the victim computer
19 has been hacked, the computer can be infected and made a bot through the installation
20 of malicious bot code. The bot code program connects to the appropriate IRC channel,
21 where it will receive commands from the owner/operator of the botnet.

22 11. Most malicious bot code includes code that enables the infected bot
23 computer to also scan the Internet for, and compromise other computers, and infect
24 these additional computers with the malicious bot code. By this means, the botnet can
25 continually spread and grow. Depending on the intended use, botnets can range in size
26 from fewer than one hundred computers to tens of thousands of computers. A botnet
27 will grow and shrink in size as new computers are infected, or existing, infected
28 computers are cleaned, shutdown, or removed from the Internet.

1 12. The process of scanning for vulnerable computers to add to the botnet is
2 often done in a random, inefficient manner. While the process is generally successful,
3 it inevitably generates large amounts of network traffic, particularly within local
4 networks. The increase in network traffic can be enough to completely interrupt and
5 disable normal network communications. The network client computers are unable to
6 perform their intended functions, and may require significant repairs in order to resume
7 those normal functions.

8 13. Creators, owners and operators of botnets can locate their botnet servers
9 or channels on server computers that they own, or that they have leased from others.
10 IRC server software can also be installed on compromised or hacked computers,
11 without the knowledge or permission of the owners of those computers. Botnet owners
12 and operators can also move their illicit botnet servers and channels from server to
13 server, to avoid or hamper detection.

14 Other Computer and Internet Terminology

15 14. Domain Name Service ("DNS") is an Internet resource for converting
16 alphanumeric names into Internet Protocol ("IP") addresses. Computers on the Internet
17 are assigned 32-bit IP addresses, that are represented by four numbers, each from 0 to
18 255, separated by periods. These numbers, ranging from four to twelve digits in length
19 (0.0.0.0 through 255.255.255.255) are often difficult for people to remember. DNS
20 provides several features, including the ability to refer to Internet addresses by
21 easy-to-remember names rather than difficult-to-remember numbers. DNS provides
22 other benefits, including the ability to change the underlying IP address while
23 preserving the availability of the resource. Users can continue to request the resource
24 by alphanumeric name, and DNS will resolve the name to the new IP address. DNS
25 also provides the ability to have a name resolve to multiple IP addresses, for
26 performance and load-balancing reasons or to provide some protection against the
27 failure of a single IP address or computer.
28

1 15. Domain names are organized hierarchically and read right-to-left. The
2 right-most component is the "top level domain." This includes the ".com," ".gov,"
3 ".mil," and ".edu" domains as well as many others. Top level domains are owned and
4 managed by the Internet sanctioning organizations. The second part of the domain
5 name is owned by the registrant who first registered the name with the sanctioning
6 organizations. It is common to refer to a registered domain and top-level domain
7 combination as a "domain name." Examples include "cybercrime.gov" and "fbi.gov."
8 Domain name owners can then create sub-domains to provide addresses to resources
9 they own or control. For example, the DNS sub-domain "www" is generally used to
10 denote an organization's web server, so "www.fbi.gov" would, and does, both denote
11 and lead to the FBI's web site. Another sub-domain, "seattle.fbi.gov," leads to the
12 Seattle office's web site.

13 16. Numerous Internet companies offer free sub-domains to their customers.
14 These companies typically have a collection of domain names that they have registered,
15 and allow their customers to create sub-domains of the domain names and control the
16 IP addresses to which those sub-domains resolve. Often, these sub-domains can be
17 created and configured without divulging much, if any, true information about the
18 customer.

19 17. DNS sub-domains are useful in the creation and maintenance of IRC
20 botnets because they provide a convenient means to ensure that bots can continue to
21 locate the IRC server even as it moves from computer to computer. The sub-domain
22 name is generally programmed into the bot so that each time it tries to connect, it
23 resolves the sub-domain to one or more IP addresses, and then tries to connect. If the
24 botnet owner needs to move the IRC server, he or she simply moves the server, and
25 then updates the DNS sub-domain record to point to the new server's IP address.

1 C. Object and Purpose of the Conspiracy

2 18. The object of the conspiracy was to profit unjustly by creating and using
3 one or more IRC botnets remotely and surreptitiously to install adware or other
4 unauthorized programs on thousands of compromised computers, without the
5 knowledge or consent of the computers' owners, and thereby obtain thousands of
6 dollars in commission payments from adware companies for those installations.

7 D. Manner and Means of the Conspiracy

8 19. It was part of the conspiracy that CHRISTOPHER MAXWELL
9 and his coconspirators intended to and did create an Internet Relay Chat ("IRC")
10 network; that is, a collection of computers communicating with each other over the
11 Internet via IRC. The IRC network created by CHRISTOPHER MAXWELL and his
12 coconspirators included at times more than thirteen thousand client computers used in
13 interstate communications, and one or more server computers.

14 20. It was further part of the conspiracy that CHRISTOPHER MAXWELL
15 and his coconspirators added client computers to their IRC network by remotely
16 compromising or "hacking" into computers that were owned and operated by others,
17 without the knowledge or consent of the computers' owners.

18 21. It was further part of the conspiracy that CHRISTOPHER MAXWELL
19 and his coconspirators, after having remotely compromised computers, remotely
20 installed on those compromised computers a malicious IRC client program, with the
21 intended result that the IRC clients were programmed to respond autonomously to
22 commands sent to them via the IRC servers created and controlled by CHRISTOPHER
23 MAXWELL and his coconspirators. The network of client computers thus became a
24 network of "robot" or "bot" computers, also know as a "botnet," the client members
25 of which were subject to command and control through the IRC servers created and
26 controlled by CHRISTOPHER MAXWELL and his coconspirators.

27 22. It was further part of the conspiracy that the malicious code with which
28 CHRISTOPHER MAXWELL and his coconspirators infected the individual IRC bots

1 enabled and commanded those bots repeatedly to seek out, or scan for and compromise
2 other computers, thereby contributing to the spreading of the botnet to new and
3 previously uninfected computers. Voluminous network traffic generated by this
4 scanning had the effect of simultaneously limiting or even preventing the compromised
5 computers from functioning normally and properly in accordance with the intent and
6 directives of their legitimate owners and operators.

7 23. It was further part of the conspiracy that CHRISTOPHER MAXWELL
8 and his coconspirators used their botnet intentionally to cause and command
9 compromised computers surreptitiously to install adware on computers used in
10 interstate communications without the knowledge or consent of the computers' owners.

11 24. It was further part of the conspiracy that the compromised computers on
12 which the botnet had installed adware would "register" those installations with adware
13 companies, which would in turn generate profits by way of illicit commission payments
14 to CHRISTOPHER MAXWELL and his coconspirators.

15 25. It was further part of the conspiracy that CHRISTOPHER MAXWELL
16 and his coconspirators received commissions totaling approximately one-hundred
17 thousand dollars, as a result of the surreptitious and unauthorized installation of adware
18 by and through their botnets.

19 26. It was further part of the conspiracy that CHRISTOPHER MAXWELL
20 and his coconspirators also hacked into computers that belonged to others for the
21 purpose of using them as servers for their IRC botnet. MAXWELL and his
22 coconspirators would accomplish this by using a variety of remote exploits to gain
23 unauthorized access to remote computers, and then surreptitiously installing IRC server
24 software on those computers without the knowledge or consent of those computers'
25 owners. Because a high-powered computer was needed to perform the functions of an
26 IRC Server, MAXWELL and his coconspirators often targeted high-powered
27 computers that were part of institutional computer networks, including those of
28 California State University, Northridge; the University of Michigan; and University of

1 California, Los Angeles. The surreptitious use of those compromised computers as
2 illicit botnet IRC servers necessarily impaired and disrupted the normal functions and
3 operations of the compromised computers.

4 27. It was further part of the conspiracy that CHRISTOPHER MAXWELL
5 and his coconspirators would act intentionally to avoid detection and disruption of their
6 illicit IRC servers by repeatedly moving the servers from one computer to another.
7 When doing so, MAXWELL and his coconspirators would also change the Domain
8 Name Service ("DNS") sub-domain record, which had been previously programmed
9 into the bots, to "point to" or resolve to the new server's IP address. This change in
10 the sub-domain record enabled the bots to find the relocated IRC server at its new
11 location.

12 28. It was further part of the conspiracy that CHRISTOPHER MAXWELL
13 and his coconspirators configured or commanded the bots that were part of their botnet
14 to connect to a designated IRC channel on a specified IRC server, and to "wait" there
15 for further commands. CHRISTOPHER MAXWELL and his coconspirators would, at
16 their discretion, connect to the IRC channel and configure persistent commands that
17 would be received and executed by every bot as it connected to the channel. This
18 system would allow the botnet to operate continuously without constant interaction by
19 CHRISTOPHER MAXWELL and his coconspirators.

20 29. It was further part of the conspiracy that CHRISTOPHER MAXWELL
21 and his coconspirators intentionally caused damage - that is, impaired the integrity or
22 availability of data, a program, a system, or information - in each instance in which
23 they compromised a protected computer without the knowledge or consent of that
24 computer's owner, whether the compromised computer was one that was made a bot or
25 an IRC server for the botnet.

1 E. Overt Acts

2 In furtherance of the conspiracy and to achieve the objects thereof, at least one
3 of the coconspirators committed or caused to be committed, in the Western District of
4 Washington, and elsewhere, at least one of the following overt acts, among others:

5 30. On or about July 16, 2004, CHRISTOPHER MAXWELL created a login
6 account with DNSMadeEasy, a company that provides free sub-domain name accounts.
7 CHRISTOPHER MAXWELL created the account "sasserpwn" using the email address
8 "donttrip31337@cashette.com."

9 31. On a date uncertain, but between July 16, 2004, and January 9, 2005,
10 CHRISTOPHER MAXWELL created two sub-domain name entries: "dust.page.us"
11 and "test0r.server.us" and programmed these two names into the source code of the
12 IRC bot program that MAXWELL and his coconspirators had created.

13 32. On a date uncertain, but between July 16, 2004, and January 9, 2005,
14 CHRISTOPHER MAXWELL and his coconspirators used the name "dust.page.us" to
15 direct compromised computers to a file transfer protocol ("FTP") server containing a
16 copy of the malicious program, which compromised computers were directed to
17 download and execute.

18 33. On a date uncertain, but between July 16, 2004, and January 9, 2005,
19 CHRISTOPHER MAXWELL and his coconspirators used the name "test0r.server.us"
20 to direct bot computers to the IRC server or servers MAXWELL and his coconspirators
21 used to maintain and control the botnet.

22 34. On or about January 9, 2005, CHRISTOPHER MAXWELL and his
23 coconspirators utilized the botnet that they had created and that they controlled
24 knowingly and surreptitiously to install adware on a protected computer belonging to
25 Northwest Hospital, without the knowledge or consent of Northwest Hospital, and as a
26 result thereof furthered their intended computer fraud in an attempt to obtain profits in
27 the form of illicit commission payments. The computer scanning activity and resultant
28 increase in network traffic within the Northwest Hospital computer network associated

1 with those acts interrupted normal network computer communications of Northwest
2 Hospital, with consequences to numerous hospital systems including, but not limited to,
3 the hospital's surgical system, patient financial system, information management
4 system, diagnostic imaging services, and laboratory services. The interruptions caused
5 to Northwest Hospital's normal network communications also caused the modification
6 or impairment, or potential modification or impairment of the medical diagnosis,
7 treatment, or care of one or more of its patients, due to delays in providing information
8 to physicians, delays in timely communicating diagnostic information, delays in
9 processing laboratory test results, delays in scheduling surgery, and the temporary loss
10 of critical computers in ICU hospital rooms. The financial costs to Northwest Hospital
11 of responding to the botnet intrusion on or about January 9, 2005 have been initially
12 estimated at \$149,000.00.

13 35. On a date uncertain, but in or about March, 2005, CHRISTOPHER
14 MAXWELL compromised the security of, and intruded upon a computer having the IP
15 address **.**.79.10 that was owned by The Planet, an Internet service provider
16 located in Dallas, Texas, and leased to one of their customers. After gaining
17 unauthorized access to the computer at The Planet, MAXWELL remotely and
18 surreptitiously installed IRC server software on that computer to allow him to operate
19 and control a botnet using that computer.

20 36. On or about March 16, 2005, CHRISTOPHER MAXWELL configured
21 the sub-domain name "test0r.server.us" to direct traffic to the IP address of the
22 compromised computer at The Planet.

23 37. By configuring the sub-domain name "test0r.server.us" to direct traffic to
24 the IP address of the compromised computer at The Planet on or about March 16,
25 2005, MAXWELL caused computers infected with the IRC bot program to establish
26 persistent communications with the IRC server, allowing him to issue commands to all
27 connected bot computers via IRC.
28

38. CHRISTOPHER MAXWELL and his coconspirators did, and caused to be done, the acts set forth in Count 2 of this Indictment, which is incorporated by reference and alleged as a separate overt act as if set forth in full herein.

All in violation of Title 18, United States Code, Section 371.

COUNT 2

(Intentionally Causing and Attempting to Cause Damage to a Protected Computer and Thereby Causing Loss in Excess of \$5,000 and Modification or Potential Modification of Medical Treatment)

On or about January 9, 2005, within the Western District of Washington and elsewhere, CHRISTOPHER MAXWELL knowingly caused and attempted to cause the transmission of a program, information, code, and command, that is, malicious botnet source code, and as a result of that conduct, intentionally caused and attempted to cause damage, without authorization, to computers belonging to, and used in interstate commerce and communications by Northwest Hospital, in Seattle, Washington, and others, and by which conduct CHRISTOPHER MAXWELL caused an aggregate loss to Northwest Hospital of at least \$5,000 in value during a one-year period, and by which conduct CHRISTOPHER MAXWELL caused the modification or impairment, or potential modification or impairment, of the medical examination, diagnosis, treatment, or care of one or more individuals.

All in violation of Title 18, United States Code, Sections 1030(a)(5)(A)(i), 1030(a)(5)(B)(i), 1030(a)(5)(B)(ii), 1030(b), 1030(c)(4)(A), and 2.

FORFEITURE ALLEGATIONS

1. The allegations contained in Counts 1 and 2 of this Indictment are realleged and incorporated by reference for the purpose of alleging forfeiture to the United States of America of certain property in which the defendant has an interest.

2. Upon conviction of any of the offenses charged in Counts 1 and 2 of this Indictment, the defendant shall forfeit to the United States pursuant to Title 18, United

1 States Code, Section 982(a)(2)(B) any property constituting or derived from proceeds
2 obtained directly or indirectly as a result of the said violations, including but not limited
3 to the following:

4 a. All funds held in Paypal Account No. *****5225 , in
5 the name of CHRISTOPHER MAXWELL;

6 b. All funds held in checking account No. *****0129 at Wells Fargo
7 Bank, in the name of CHRISTOPHER MAXWELL;

8 c. All funds held in savings account No. *****9657 at Wells Fargo
9 Bank, in the name of CHRISTOPHER MAXWELL.

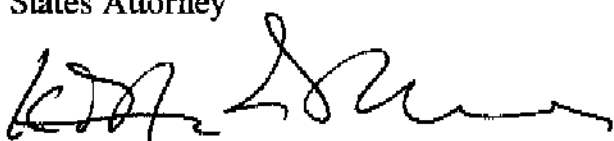
10 A TRUE BILL:

11
12 DATED: 9 FEBRUARY 2006

13 Signature of Foreperson redacted pursuant to
14 the policy of the Judicial Conference of the
United States.

15 _____
16 FOREPERSON

17 
18 _____
19 JOHN McKAY
United States Attorney

20 
21 _____
22 KATHRYN A. WARMA
Assistant United States Attorney

23 
24 _____
25 CARL BLACKSTONE
Assistant United States Attorney

26 
27 _____
28 RICHARD E. COHEN
Assistant United States Attorney